Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

VARIOUS.

A PASTE.

An excellent paste for fixing labels on glass, wood, or paper, may be prepared by dissolving eleven parts, by weight, of common glue, soaked a day before in cold water, seven parts of gum-arabic, and some rock-candy, in fifty-six parts of water, at a gentle heat, with continued stirring until the mass is uniform. Labels brushed with this and dried will adhere firmly if simply moistened with saliva when used. *The Builder.*

THE POTTERY TREE OF PARA.

This is one of the curiosities of Brazil. The stem does not exceed a foot in diameter, and it grows to the height of 100 ft. But the peculiarity of the tree does not consist in its configuration, but in the nature of its wood and bark, which contain so much silica that they are used by potters in the production of earthenware vessels. The bark contains more silica than the wood, and in preparing the bark for the potter's use it is first burnt and the residuum is pulverised and mixed with clay. An equal quantity of the two ingredients produces superior ware. The fresh bark cuts like soft sandstone, and when dried it is brittle and hard.

The Builder.

SO-CALLED VEGETABLE LEATHER.

Stœmmelen patents the manufacture of a fabric consisting of india rubber masticated, sulphurized, and coloured in the usual way; this is rolled into sheets, coiled on a drum between two cloths to prevent adherence, and then introduced into an autoclave at a pressure of five atmospheres; this steaming is continued for a time proportionate to the thickness of the sheet. Finally, the sheet is desulphurized by means of a bath of bleaching powder, American potash, and green soap; the product constitutes a supple, elastic, impermeable material, not subject to wearing. A black tint is given by means of lampblack; a white, by zinc oxide, and so on, from 5 to 10 per cent. of colouring matter being added.

Bulletin Soc. Chim. Paris.

METAL WIRE.

Silver wire has been run through plates of rubies to the length of one hundred and seventy miles, in which the most delicate test could detect no difference in diameter in any part. Gold and Platinum have been drawn to a "spider line" for the field of a telescope, by coating the metal with silver, drawing it down to the finest number, and then removing the coating by acid, leaving the almost imperceptible interior wire, which, in an experiment made in London was so attenuated that a mile's length weighed only a grain. *The Engineer.*

ASBESTOS.

G. Cleghorn and F. G. Paterson patent the following applications of asbestos:— (1) Making paper out of asbestos fibre pulp, or a mixture of that with other fibre, and cutting this asbestos paper into strips, and twisting these into thread, yarn, or cord, either with or without being first coated with india-rubber; (2) twisting two or more of these into larger cords, either with or without a core of india-rubber, for making fluid-tight packings and joints of stuffing boxes, working and other parts of steam engines and other machinery, pipes, boilers, stills, and retorts; (3) plaiting these twisted asbestos threads into braids for making the said packings and joints; (4) weaving the asbestos thread or yarn into a cloth, somewhat about the texture of canvas, which would withstand the action of he weather and heat, and be used for flange joints and for coverings, mail and despatch bags, window curtains, also for producing works of art upon surfaces to stand against decay and fire, and making wrappers for projectiles; (5) making waddings, cartridge cases, and wrappers for cartridges out of asbestos paper, millboard, pasteboard, or woven fabric, which would prevent windage and friction, from the flexibility and lubricity of the asbestos enabling the barrels to be kept longer clean and be fired oftener.

Practical Magazine.

COLOURING GLASS WITH GOLD.

Payard points out that the tints produced in glass by gold depend on the temperature to which the glass is exposed, and to a certain extent also on the nature of the material of which the mold is made. Low temperatures give a bluish colour, but this can, on renewed heating, be brought to splendid crimson. Dingler's Polyt. Journal, ccx. 476. *Practical Magazine.*

INCOMBUSTIBLE WASH FOR WALLS.

Slack stone lime in a large tub or barrel with boiling water, covering the tub or barrel to keep in all the steam. When thus slacked, pass six quarts of it through a fine sieve. It will then be in a state of fine flour. Now, to six quarts of this lime, add one quart of rock salt, and one gallon of water; then boil the mixture, and skim it clean. To every five gallons of this skimmed mixture, add one pound of alum, half a pound of copperas, by slow degrees add three-fourths of a pound of potash, and four quarts of fine sand or hickory ashes sifted. We suppose any kind of good hardwood ashes will answer as well as hickory. This mixture will now admit of any colouring matter you please, and may be applied with a brush. It looks better than paint, and is as durable as slate. It will stop small leaks in the roof, prevent the moss from growing over and rotting the wood, and render it incombustible from sparks falling upon it. When laid upon brickwork, it renders the brick impervious to rain or wet. *Practical Magazine.*

COMPASS PIVOTS.

Duchemin recommends the substitution of German onyx-agate, which is very cheap, resists the action of acids, and remains bright a long time, for white cornelian and porphyry, which are commonly used in the French navy for the pivots of ships' compasses.

Comptes rendus, lxxix. 24.

IMPROVED VARNISH FOR SPECIAL PURPOSES.

Moreau of Paris patents the following improved varnish:—Inuse 19 5 grammes of gum sandarach in $^{1}/_{4}$ litre spirits of wine, falso 120 grammes spirits of turpentine in $^{3}/_{4}$ litre spirits of wine. Stand the two infusions in a water-bath for half an hour; then mix, and place the mixture in the water-bath for fourteen minutes more. Allow it to stand for twenty-four hours, and filter through cotton. The result is a colourless varnish which may be given any desired tint with saffron, Prussian blue, indigo, &c. The patentee states that the effects resemble those formerly produced by the famous "vernis Martin", the secret of which is now lost.

Bulletin de la Soc. Chim. de Paris, xxii 12.

ENCAUSTIC FOR ARMS, METALLIC AND VARNISHED SURFACES, &c.

Chevallier (Les Sieur) patents the following:

Bones, calcined and scraped .	100 kilogs.
Stearine, scraped	100 grammes.

Grind; add 50 grammes quicklime; mix into paste with water and pound well. Apply with a linen rag. Lime must be omitted when the preparation is to be used on stuffs for facing, &c.

Bulletin de la Soc. Chim. de Paris, xxii 11.